Application Note

COMPANY	**SiLed**
PRODUCT NAME	POWER SUPPLY
OUR P/N	
OUR MODEL NO	**GFP241DA-1220/JH**
CUSTOMER NO	
STANDARD	UL60950 FCC PART.15
RATING	I/P:AC100-240V 0.5A 50-60HZ
	O/P: DC12V 2000mA
CERTIFICATION	**NOM-001-SCFI-2018 (NMX-I-60950-1-NYCE-2015)**
REMARK	UL
REVISION	00

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1.0 INTRODUCTION

This specification defines the performance characreristics for a class 2 adapter, single-phase watt.single output level power supply

◆Very low standby power achieved

◆Over load Latch-Off protection during either(a)specified power threshold requirements or(b)Shot circuit condition

◆Reliability level or 50000 hours MTBF& 0.5% annual field failure rate@25℃

2.0 INPUT REQUIREMENTS

◆AC Input voltage rating 100Vac to 240Vac

◆AC Input voltage range 90Vac to 254Vac

◆AC Input frequency range 47Hz to 63Hz

◆Max. In-rush current 30A for 100Vac at full load

75A for 240Vac at full load

◆Input current 0.5A Max @ 90V/60Hz full load

◆Standby power 0.3W Max @ 230V/50Hz no load

3.0 OUTPUT REQUIREMENTS

◆Output voltage +12V

◆Output voltage tolerance +/-0.6V

◆Min load current 0 mA

◆Max load current 2000 mA

◆Line regulation +/-1%

◆load regulation +/-5%

◆Ripple & Noise 120mVp-p (max)

DC-20MHz/Ripple and Noise is measured on output connector with 20MHz oscilloscope bandwidth differentially with a 10uF electrolitic and 0.1uF ceramic capacitors across output

4.0 IPERFORMANCE SPEC

◆Total output power 24W typical

◆Efficiency 70% min@100～240Vac50/60Hz with full load

◆Hold up time 10m sec.min.@ 100Vac/60Hz with full load

◆Turn on delay time 3sec.max.@ 100Vac/60Hz with full load

◆Switching frequency 65K Hz typical

5.0 PROTECTION FUATURES

◆Over-voltage protection The output voltage shall be clamped by internal protection zener/

◆ Over-current protection Output shut down(Auto restart)when output voltage exceeds

◆Short circuit protection Output shut down(Auto restart)

◆Over-temperature protection output shut down when case face temperature exceeds 65℃

6.0 ENVIRONMENTAL

◆Operation temperature -20℃ to +40℃

◆Operation humidity 20% to 90% R.H.

◆Storage temperature -20℃ to +75℃

◆Storage humidity 0% to 90% R.H.

7.0 SAFETY REQUIREMENTS AND CERTIFICATION

7.1 Regulatory Standard

◆The power supply shall complied the following international regulatory standards

For short	country	Certified Status	Standard
UL	USA	approval	UL 60950
FCC	USA	approval	FCC part 15
CE	Europe	approval	EN60950/EN55022
C-TICK	Australia	approval	AS/NZS CISPR22:2004
SAA	Australia	approval	AS/NZS
GS	Germany	approval	EN60950/EN55022

7.2 Dielectric withstand (Hi-pot) test

◆Input to output 3000Vac 10mA/60S

7.3 Insulation

◆Input to output DC 500V 10M ohm Min

8.0 APPEARANCE DRAWING